AWFCG Outstanding Research Tasks

Task

Review of the Drought Code as it applies to Alaska.

Statement

In Alaska, fire planners, fire managers, and firefighters heavily utilize the CFFDRS indices for prescribed burn planning, daily resource availability and allocation, operational strategies and suppression tactics. The CFFDRS Fire Weather Indices are based on empirical data from eastern red and jack pine stands. Further empirical studies are needed to determine if Alaskan fuels should have modified algorithms to better relate observed data to the CFFDRS indices.

Specifically, there is a strong need for calibration of the CFFDRS indices for Alaskan boreal fuel types to ensure accurate representation of seasonal changes in duff moisture. The DC in particular exhibits "DC Departure" late in the season but the causes have not been well investigated, partly because the DC itself is not well understood owing to abstruse mathematics. A review of the DC and its underlying hydrological model, as it applies to Alaska, is needed.

Deliverables

An analysis of what soil attributes the DC represents in lowland black spruce forests in Alaska. An analysis identifying the weak points of the hydrological model underlying the DC in representing seasonal drought in forest floors of Alaska.

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